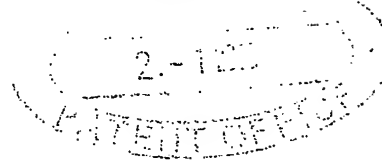


PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY



To:
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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43 bis.1)

| | |
|---|--|
| Date of mailing (day/month/year) 31.01.2006 | |
| Applicant's or agent's file reference R05214PCT | FOR FURTHER ACTION See paragraph 2 below |
| International application No. PCT/JP2005/021501 | International filing date (day/month/year) 17.11.2005 |
| Priority date (day/month/year) 22.11.2004 | |
| International Patent Classification (IPC) or both national classification and IPC Int.Cl. G11B7/125(2006.01), G11B7/095(2006.01), G11B7/135(2006.01) | |
| Applicant RICOH COMPANY, LTD. | |

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

| | |
|--|---|
| Date of completion of this opinion 10.01.2006 | |
| Name and mailing address of the ISA/JP Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan | Authorized officer Hajime Suzuki Telephone No. +81-3-3581-1101 Ext. 3551 |

5D 9847

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/021501

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing
 - ☐ contained in the international application as filed
 - ☐ filed together with the international application in electronic form
 - ☐ furnished subsequently to this Authority for the purposes of search
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/021501

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|---------------------------|-----|
| Novelty (N) | Claims | 5-20, 25-36, 38-39, 41-42 | YES |
| | Claims | 1-4, 21-24, 37, 40 | NO |
| Inventive step (IS) | Claims | 5-20, 25-36, 38-39, 41-42 | YES |
| | Claims | 1-4, 21-24, 37, 40 | NO |
| Industrial applicability (IA) | Claims | 1-42 | YES |
| | Claims | | NO |

2. Citations and explanations:

- D1 = JP 2004-103093 A (RICOH COMPANY, LTD.) 2004.04.02, Paragraph numbers 0034,0044, Fig 9 (Family: none)
D2 = JP 2003-317298 A (ASAHI GLASS COMPANY, LIMITED) 2003.11.07, Paragraph numbers 0023,0043-0045, Figs 1-3,6 (Family: none)
D3 = JP 2004-158102 A (NEC CORPORATION) 2004.06.03, Paragraph numbers 0015,0023-0024,0105, Figs 17,19 (Family: none)
D4 = US 2002/0097504 A1 (Kazuya Kitamura) 2002.07.25, Paragraph numbers 0073,0077,0081,0226, Fig 8 & JP 2002-140831 A & NL 1019266 A
D5 = JP 2004-206763 A (Hitachi Maxell, Ltd.) 2004.07.22, Paragraph numbers 0019,0023-0025, Fig 1 (Family: none)

The subject matter of claim 1, 21, 37, 40 does not meet the requirements with respect to novelty and inventive step. D1-D5 disclose the point containing an aberration generation device provided between the light source and the objective lens, configured to generate coma aberration for the beam focused by the objective lens, based on a detected value from a device configured to detect a degree of tilt of the optical recording medium.

The subject matter of claim 2, 22 does not meet the requirements with respect to novelty and inventive step. D3-D4 disclose that the aberration generation device is composed of two lenses to generate spherical aberration and coma aberration.

The subject matter of claim 3, 23 does not meet the requirements with respect to novelty and inventive step. D1-D2, D5 disclose that the aberration generation device has an electrode pattern configured to generate coma aberration and an electrode pattern configured to generate spherical aberration and is a liquid crystal element that sandwiches a liquid crystal layer.

The subject matter of claim 4, 24 does not meet the requirements with respect to novelty and inventive step. D1-D3 disclose that the aberration generation device generates coma aberration in a radial direction of the optical recording medium.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/021501

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V

The subject matter of claim 5-20, 25-36, 38-39, 41-42 is neither disclosed in any of the documents cited in the ISR nor obvious to a person skilled in the art.